# VALUE ENGINEERING CHANGE PROPOSAL MISSOURI DEPARTMENT OF TRANSPORTATION

| ☐ Conceptual Proposal ☐ Final Proposal  | <b>Date</b> 2-23-10  |
|---|--|
| Contract ID090626-802   | Job No. <u>J8P0605B</u> , 605D, & 605E   |
| County Greene 65  | Original Bid Cost \$26,943,391.78  |
| Contractor Emery Sapp & Sons  | By Josh Doerhoff   |
| Designed By MoDOT   | Phone 573-445-8331   |
| VECP# 10-07 (to be completed by C.O.)   | VECP $\square$ or PDVECP $\boxtimes$   |
| this area: 10" PCCP, Type A2 Shoulders, Type 5 Treatment, 1 Impact Attenuator, and Removals of  | ssary items to construct and install the new 65 Interchange. Emery Sapp & Sons would like er in order to avoid additional expenses to the OOT will not need to overrun the following items in Aggregate Base, Subgrade Compaction, Edge The Existing Pavement. |
| 2. Estimate of reduction in construction costs. \$48  | 8,274.21   |
| <ol> <li>Prediction of any effects the proposed change(s) will maintenance and operations.         None     </li> <li>Anticipated date for submittal of detailed change(s)</li> </ol> |  |
| Specifications.   |  |
| 2-8-<br>(dat  |  |
| 5. Deadline for issuing a change order to obtain maxin contract completion time or delivery schedule.   | num cost reduction, noting the effect of   |
| 3-8-10 Drainage will b  | be installed in this area shortly  |
| (date)  | (effect)   |
| 6. Dates of any previous or concurrent submission of the  | he same proposal.  |
| 2-8-  | 10   |
| (date and/o   |  |

### \*\* Portion Below This Line To Be Filled Out by MoDOT \*\*

| Comn    | nents: This proposing staff and | sal has been reviewed by Project Offi<br>& appears to be acceptable.     | ice and District   |
|---------|---------------------------------|--|--------------------|
|         |                                 | Saule Al Dams  |                    |
|         |                                 | Submitted By Resident Engineer   | 2/24/10<br>Date    |
| Comm    | nents: f concur                 | with she change to oddress she in  | let need.          |
|         |                                 |  |                    |
| 1 1 1 1 | /<br>Approval<br>Recommended    | Matter C. Seil   | 2-26-2010          |
|         | Rejection<br>Recommended        | District Engineer  | Date               |
| Comm    | ents:                           |  |                    |
|         |                                 | NA   |                    |
| 1 1     | Approval<br>Recommended         |  |                    |
| 1 1     | Rejection<br>Recommended        | Federal Highway Administration Required for FHWA Full Oversight Projects | Date               |
| Comme   | ents: APPRO                     | NO PAR DISTRICT RECOMMISMORAGIN  |                    |
|         | pproval<br>ejection             | State Construction and Materials Engineer                                | 3 - 2 - 10<br>Date |



140 Walnut St. Kansas City, MO 64106 O: 816.221.3500 F: 816.421.9333

2602 N. Stadium Blvd. Columbia, MO 65202 O: 573.445.8331 F: 573.445.0266 5350 E. State Hwy. AA Springfield, MO 65803 O: 417.833.9915 F: 417.833.9981

February 23, 2010

Mr. Gayle Davis R.E. Missouri Dept. of Transportation 251 SW Outer Road Branson, MO 65616

RE: Value Engineering #4 Revised Rte.H, Greene County Job No J8P0605B, & Job J8P0605D

### Mr. Davis:

Attached is the revised Value Engineering Proposal for the Sunshine and Hwy 65 intersection. The intention of this Value Engineering Proposal is to provide a more economical installation of drainage items as well as providing a protection system for the existing Type C Barrier wall that crosses over Sunshine Street.

While planning the installation of the drainage for the areas between stations 969+00 and 969+50 as well as between stations 1002+65 and 1003+70 we discovered that MoDOT had not included any form of protection, removals, and new pavement in the area that new storm drainage was to be installed. If MoDOT chooses to install the drainage in these areas per the plans then several pay items will need to be overrun. We believe we can construct these areas of the project using a much more cost effective approach.

A detailed description of the changes we would make is listed below.

### South End of Existing Type C Barrier at Sunshine

- 1. Move Type C Barrier Wall Plunge Cut to Station 1003+35
- 2. Eliminate 67 LF of Type C Barrier
- 3. Eliminate Installation of Inlet 1-1B-3 = 6 VF Would propose to reuse this inlet on Job 605D in lieu of having another inlet constructed for inlet 1-1B-3 Sta 879+02. This would require us to saw out the dog house in order to place the inlet at the depth shown on the plans.
- 4. Eliminate 2 EA Curved Vane Grates & Frame
- 5. Eliminate 15" RCP run between inlets 1-1B-3 and 1-2B-3
- 6. Relocate Inlet 1-2B-3 to Station 1003+80
- 7. Eliminate 30 LF of 18" RCP Run
- 8. Total Class 3 Elimination 135.8 CY
- 9. Eliminate Additional 293 SY of 10" PCCP that would need to be added to the contract between Stations 1002+68.50 and 1003+70.

- 10. Eliminate Additional 158 SY of A2 Shoulder that would need to be added to the contract between Stations 1002+68.50 and 1003+70.
- 11. Eliminate Additional 451 SY of Type 5 Baserock that would need to be added to the contract between Stations 1002+68.50 and 1003+70.
- 12. Eliminate Additional Excavation of Existing roadway that would need to be added to the contract between Stations 1002+68.50 and 1003+70.
- 13. Eliminate Additional 1 STA of Subgrade Compaction that would need to be added to the contract between Stations 1002+68.50 and 1003+70.
- 14. Eliminate Additional 203 LF of Edge Treatment that would need to be added to the contract between Stations 1002+68.50 and 1003+70.
- 15. Add 25 LF of Type F Barrier when CCG is preparing to pour new Type C Barrier
- 16. Add ½ CY of Concrete to Plug 15" opening in inlet 1-2B-3

### North End of Existing Type C Barrier at Sunshine

- 1. Eliminate 40 LF of 15" RCP
- 2. Eliminate 48 CY of Unclassified Excavation
- 3. Eliminate 0.3 STA of Subgrade Compaction
- 4. Move Pavement Saw Cut to Station 969+05
- 5. Eliminate 42.9 CY Class 3 Excavation
- 6. Eliminate 72.22 SY of 10" PCCP between Stations 969+05 and 969+28.50.
- 7. Eliminate 38.89 SY of A2 Shoulder between Stations 969+05 and 969+28.50.
- 8. Eliminate Type 5 Baserock 111.1 SY between Stations 969+05 and 969+28.50.
- 9. Eliminate 50 LF of Pavement Edge Treatment.
- 10. Eliminate Additional Impact Attenuator that would need to be added to the contract.
- 11. Add 25 LF of Type F Barrier when CCG is preparing to pour new Type C Barrier

We would like to request a response to this Value Engineering Proposal by March 8<sup>th</sup> if at all possible in order to take advantage of as much of the savings as possible.

If you have any questions or need any additional information please don't hesitate to call.

Sincerely,

Emery Sapp & Sons, Inc.

Josh Doerhoff

Greene Co Rt 65
Revised Plan for Protection of Type C Barrier Protection

South End Sunshine Barrier Protection

| coast Fire Cansille Daille L'Olection            |           |        |                 |             |             |
|--|-----------|--------|-----------------|-------------|-------------|
| 1 X Removal of Existing Pavement                 | 1.00 LS   | ×      | \$ 4025 BE 11 C | 0   /       | 10 100 FB   |
| 1 X Unclassified Excavation                      | 17E 49 CV |        |                 | 2           | \$4,023.63  |
|  | 173.43 CT | <      | 4.75            | 4.75 // CY  | \$833.29    |
| I X Edge Ireatment                               | 203.00 LF | ×      | \$ 2.00         | /IF         | \$40B 00    |
| 1 X 10" PCCP                                     | 293.20 SY | ×      | \$ 35.35        | \S:/        | \$40.364.62 |
| 1 X Type A2 Shoulder                             | 157 90 SY | ×      | 27.05           | -           | 410,004.02  |
| 1 X Type & Aggregate Book                        | 7.00      | :      | 1               | _           | 75.785,44   |
| 1 y 1 ypa o Aggregate Dase                       | 451.10 SY | ×      | \$ 4.25         | /S√         | \$1.917.18  |
| 1 X Subgrade Compaction                          | 1.00 ST   | ×      | \$ 350 00 /ST   | /ST         | #350 00     |
| 1 X Type C Barrier                               | 7 00 10   | ;      |                 | 5           | 00.000      |
|  | 97.00 LF  | ×      | 34.00           |             | \$2,278,00  |
| I X Double Type B Inlet                          | 6.00 LF   | ×      | \$ 670.00       | /1 F        | \$4 020 00  |
| 1 X   Curved Vane Grate & Frame                  | L         | ;      |                 | 4           | 00.020,+    |
| י א לשויס טמנס ארומוות                           | 2.00 EA   | ×      | \$ 490.00       | / EA        | \$980.00    |
| 1 X 15" KCP                                      | 73.00 LF  | ×      | 23.00           | 111         | \$4 670 00  |
| 1 X 18" RCP                                      | 30 00 E   | : >    |                 |             | 00.870,10   |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \            | 1         | <      |                 | / Lr        | \$810.00    |
| I A Class 3 Excavation                           | 135.80 CY | ×<br>- | \$ 35.00        | 35.00 I/ CY | \$4 753 00  |
| 1 X Sawcut Inlet for Reuse at 605D 1-1B-3        | -1.00 LS  | ×      | \$ 446.25       | U           | (AAAA 2E)   |
| 1 X Type F Barrier                               | 7 103 30  | ;;     |                 | 2           | (4440.23)   |
|  | -Z3.3U LF | ×      | 18.00           | / LF        | (\$459.00)  |
| I A Julass B Concrete Patch Opening Inlet 1-2B-3 | -0.50 CY  | ×      | \$ 300.000 / CY | \C\         | (\$150.00)  |
|  |           |        |                 |             | (20:00      |

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\$35,759.20

Savings

| 1 X Impact Attenuators     | 1.00 EA   | ×          | 5 000 00 1/ EA | \$5,000,00 |
|----------------------------|-----------|------------|----------------|------------|
| 7 - 21                     |           | * <br>     | C1 / 00.00010  | 00.000.00  |
| I A Undassilled Excavation | 48.00 CY  | ₩<br>×     | 8.70 / CY      | \$417 BO   |
| 1 X Subgrade Compaction    | 0.30 ST   | ×          | 350.00         | 00.7-1     |
|                            |           | +          | 0000           | 00.CO   &  |
| 13 KCF                     | 40.00 LF  | ×          | 24.00 / I F    | \$080 OO   |
| 1 X Clase 3 Expandion      | 70000     | +          |                | 00.000     |
| Ciass o Excavation         | 42.90 CY  | ×          |                | \$2 145 00 |
| 1 X 10" PCCP               | 72 20 SV  | >          | 36 75          | 10000      |
| 1000                       |           | 1          | 00.70          | 44,003.30  |
| AZ Shoulders PCCP          | 38.90 SY  | <i>ψ</i> : | 29 10 / SV     | £1 131 00  |
| 1 V Timo E Bosonoli        |           |            |                | D. 101.19  |
| 1 A 1ype 3 baselock        | 111.10 SY | ×          | 4.15 // SY     | 4461 07    |
| 1 X Edge Treatment         | 1 - 00    |            |                | 0.10       |
|                            | 100.0c    | ×          | 2.00 / LF      | \$100 00   |
| 1 × T.m. T D.m.:           |           |            | +              | 00.00      |
| I A Type r barrier         | -25.50 LF | ×          | 18.00 I/LF     | (\$459 00) |
|                            |           |            | _              |            |

\$12,515.01 11 Savings \$48,274.21 **Total Savings** 

| Contract ID:    | 090626-802  |                        | Fed               | St/Pr Prj Nt | or: FAF-6 | 5-2(64)         |
|-----------------|---|------------------------|-------------------|--------------|-----------|-----------------|
| Status:         | Active  | <del></del>            |                   | Primary PC   | N: J8P06  | 605B            |
| District:       | 08  | OrgCode: 8CD           |                   |              |           | Funding Federal |
| Progress Sched: | 10 (0 ) 10 (0 |                        | Varianc           | e Pct:       | .00       | State/Province  |
| Desc:           | J8P0605B, D, E - ROI  | JTE 65 - GREENE COUNTY |                   |              |           | ⊚ Both          |
| Time Charges:   | COMPLETION DATE   |                        | Bid Days:         | 740          | Bid Amt:  | \$26,943,391.77 |
| Contract Type:  | Construction Project A  | bove \$500,000         | <del></del>       |              |           | Fed Oversight   |
| Work Type:      | NEW CONSTRUCTIO   | N                      |                   |              |           | Local Oversight |
|                 |   |                        | i                 | Proposal Fu  | nd Type:  |                 |
| Spec Yr:        | 1996 L  | Init System: English   | Suppl Spec Bk Yr: | 1996         | Alt ID:   |                 |

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## VALUE ENGINEERING CHECK SHEET

# TYPE OF WORK (Check one that applies) Bridge/Structure/Footings X Drainage Structures (RCP, RCB, CMP's, ect.) TCP/MOT Paving (PCCP, ect.) Grading/MSE Walls Signal/Lighting/ITS Misc. SUMMARY OF PROPOSAL

| (If needed, condense summary to a couple of lines)  |
|---|
| Modify method of construction. Move 2 drainage structures and eliminate another to reduce project cost and reduce time of construction. |
|   |

| If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here. Scan entire document. |                | SCAN    | INING OF I | DOCUMENT              |                        |      |
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